

## Instructions for using the EIM Data Entry Tool

Draft Version – 2 May 2013

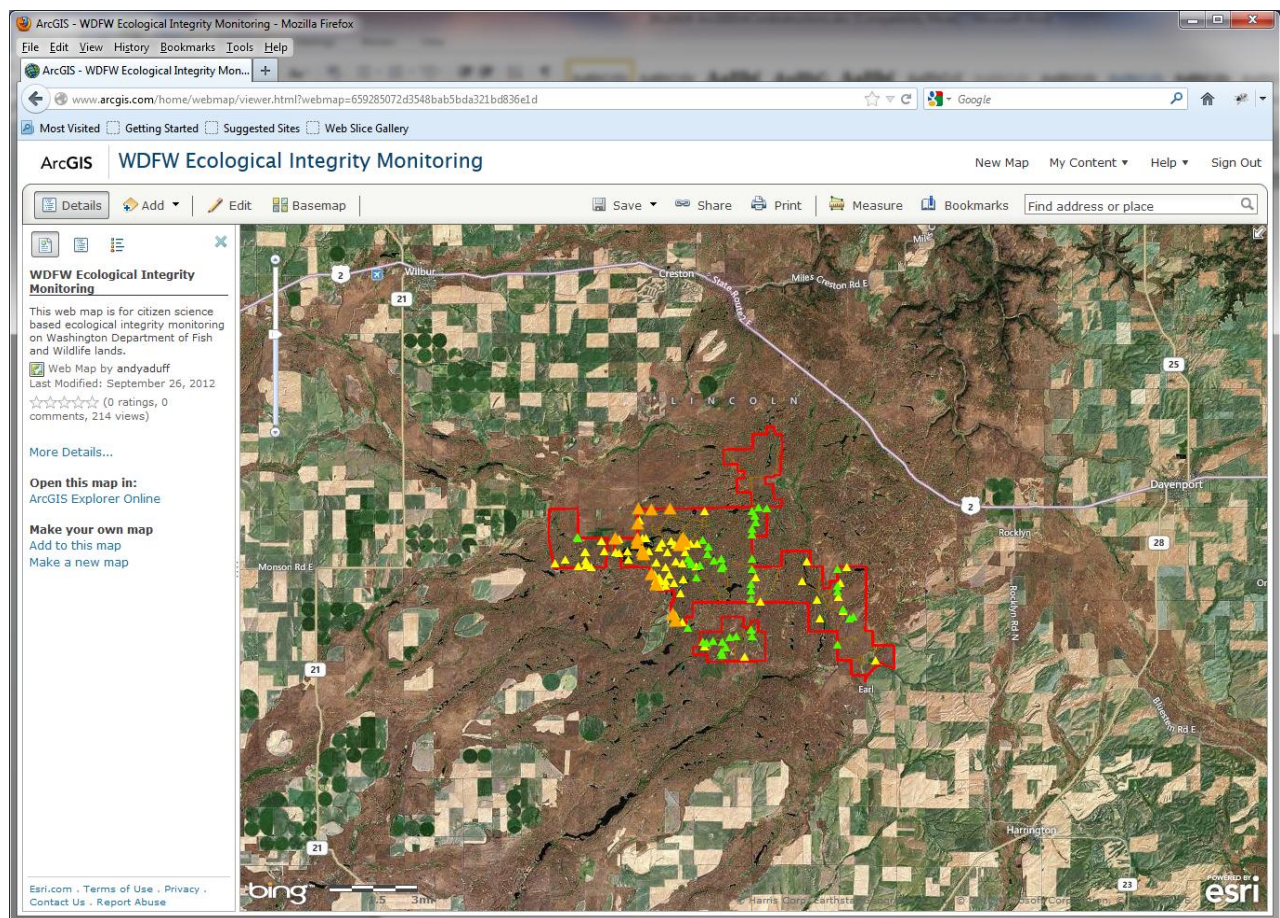
Washington Department of Fish and Wildlife (WDFW) has developed an online tool for entering data collected during the Ecological Integrity Monitoring (EIM) project. These instructions are designed to help facilitate the data entry process for volunteers.

The web map for entering ecological integrity monitoring results can be accessed by navigating to the following web link and entering your username and password\*.

<https://www.arcgis.com/home/webmap/viewer.html?webmap=659285072d3548bab5bda321bd836e1d>

When the map opens up you will be prompted for login credentials. By default we have assigned your username to be the email (all lower case) that you used when you signed up as a volunteer with WDFW. Everyone gets the same default password of WDFW#1A. If you would like to change your password to something that you can easily remember please email [andrew.duff@dfw.wa.gov](mailto:andrew.duff@dfw.wa.gov) and he will take care of that for you.

Once you have entered your login information for the ArcGIS web map you will be presented with the map shown below.

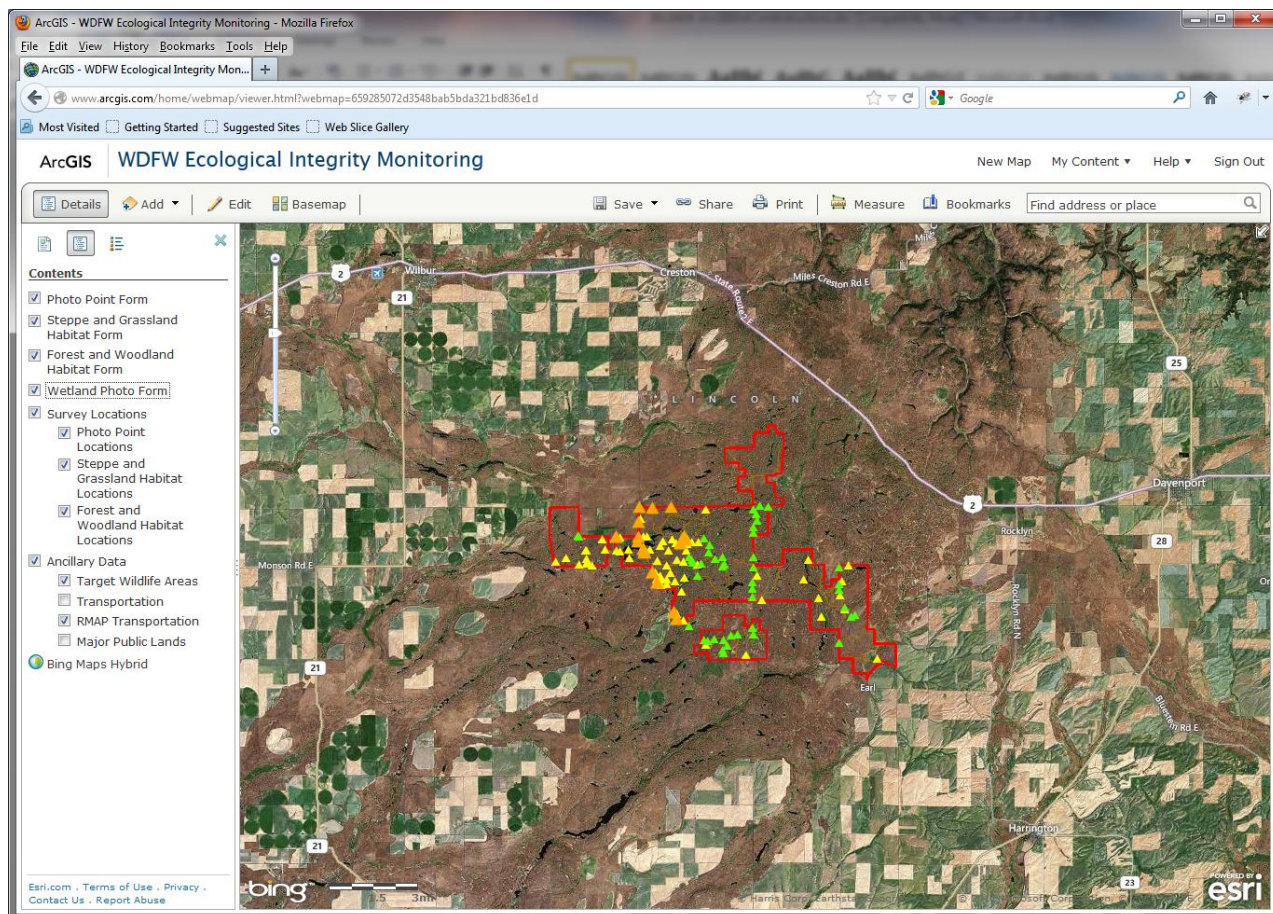


You will notice on the left hand side of the screen there is a details panel which can be shown/hidden by clicking the "Details" button just below the ArcGIS text on the upper left hand side of the screen. You

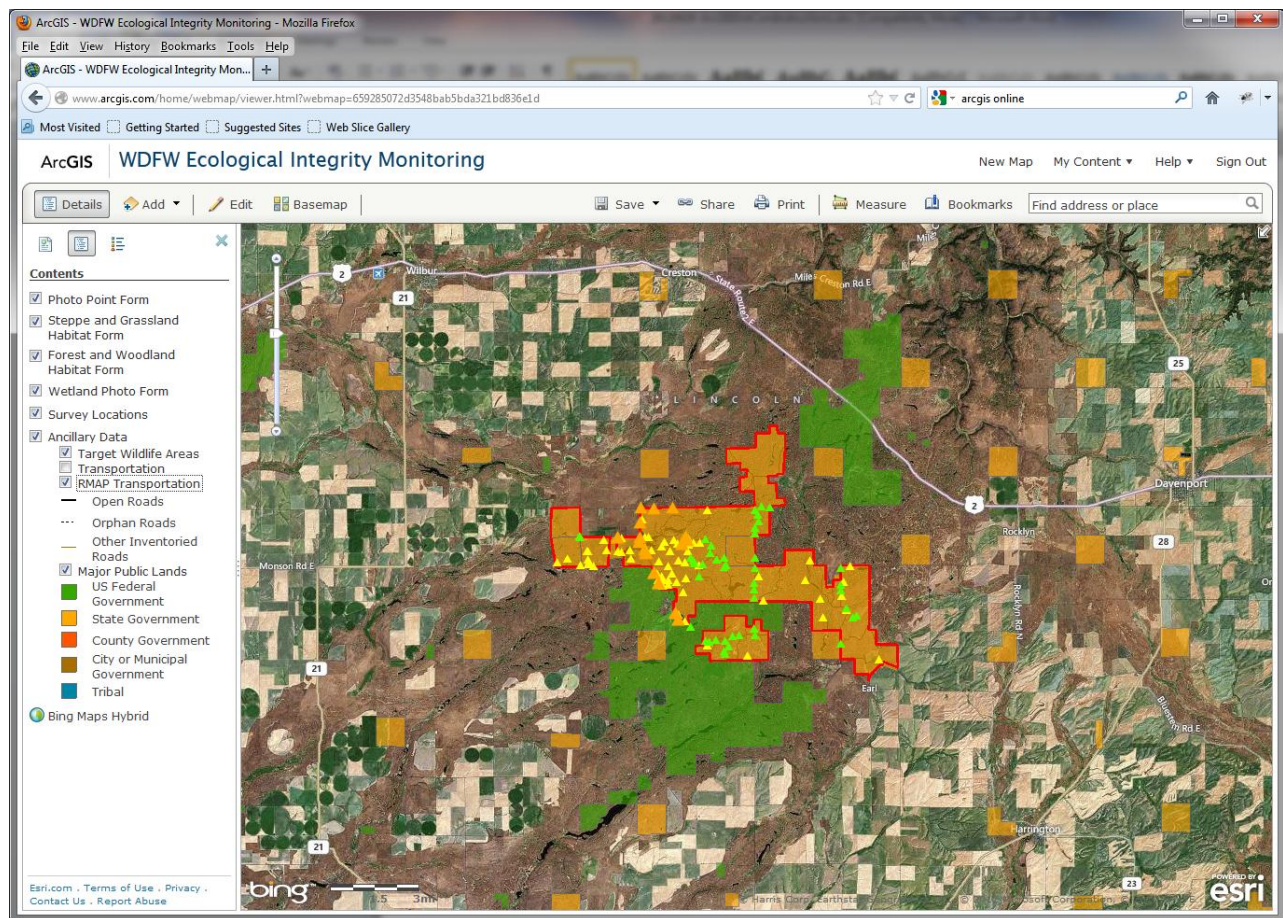
\*Remember that your username is the email you provided when you registered to volunteer for the project. Your password default is WDFW#1A but this can be changed by sending an email to [andrew.duff@dfw.wa.gov](mailto:andrew.duff@dfw.wa.gov).



will notice just below the “Details” button there are three icons which allow you to switch to three different views. The default is shown in the previous screenshot where you can see some basic information about the map. If you click the second icon you will see the map table of contents as shown below.

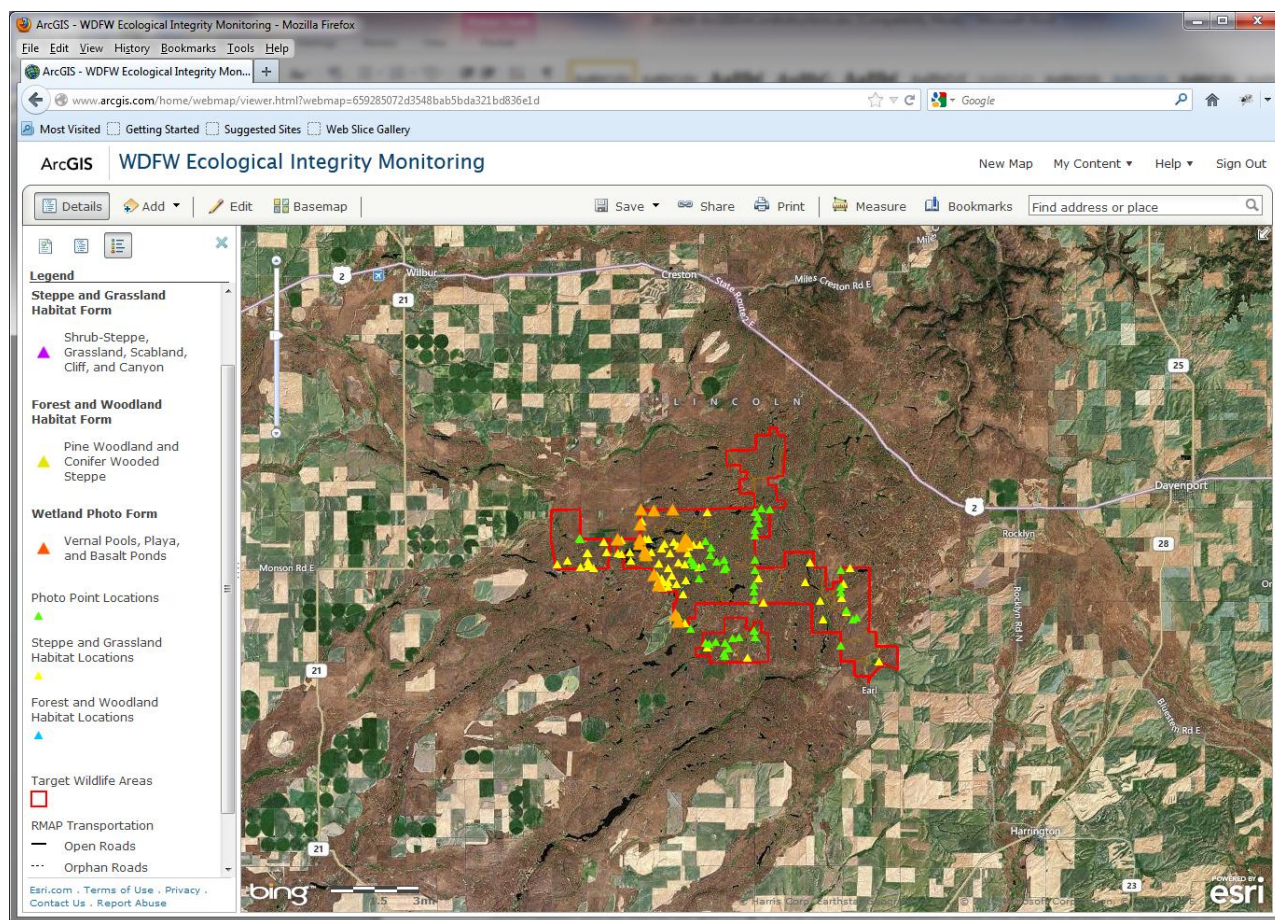


If you click each entry in the table of contents it will expand to show the legend for the map. You have the ability to turn layers on and off by clicking the checkboxes. This might be useful if you are planning to visit only photo points on any given day and want to only show those locations on the map during your trip planning. Also note that although turned off by default, there are several background data layers under “Ancillary Data” which might be useful. Both transportation and major public lands map layers are available for viewing and may aid you in determining access to a site.

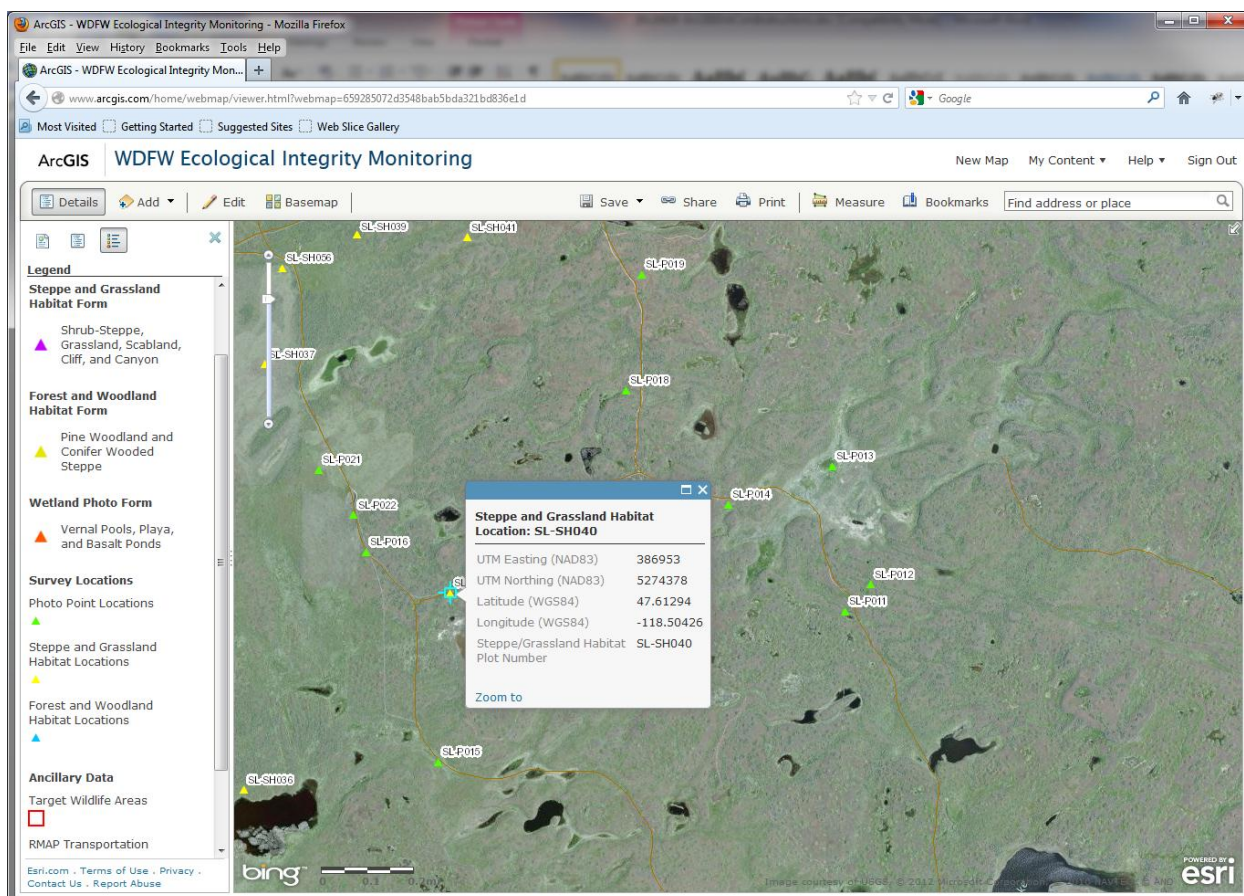


The third icon on the Details Pane allows you to view the map legend. This is a quick way to understand the colors that you see in the mapping layers (see screenshot below).



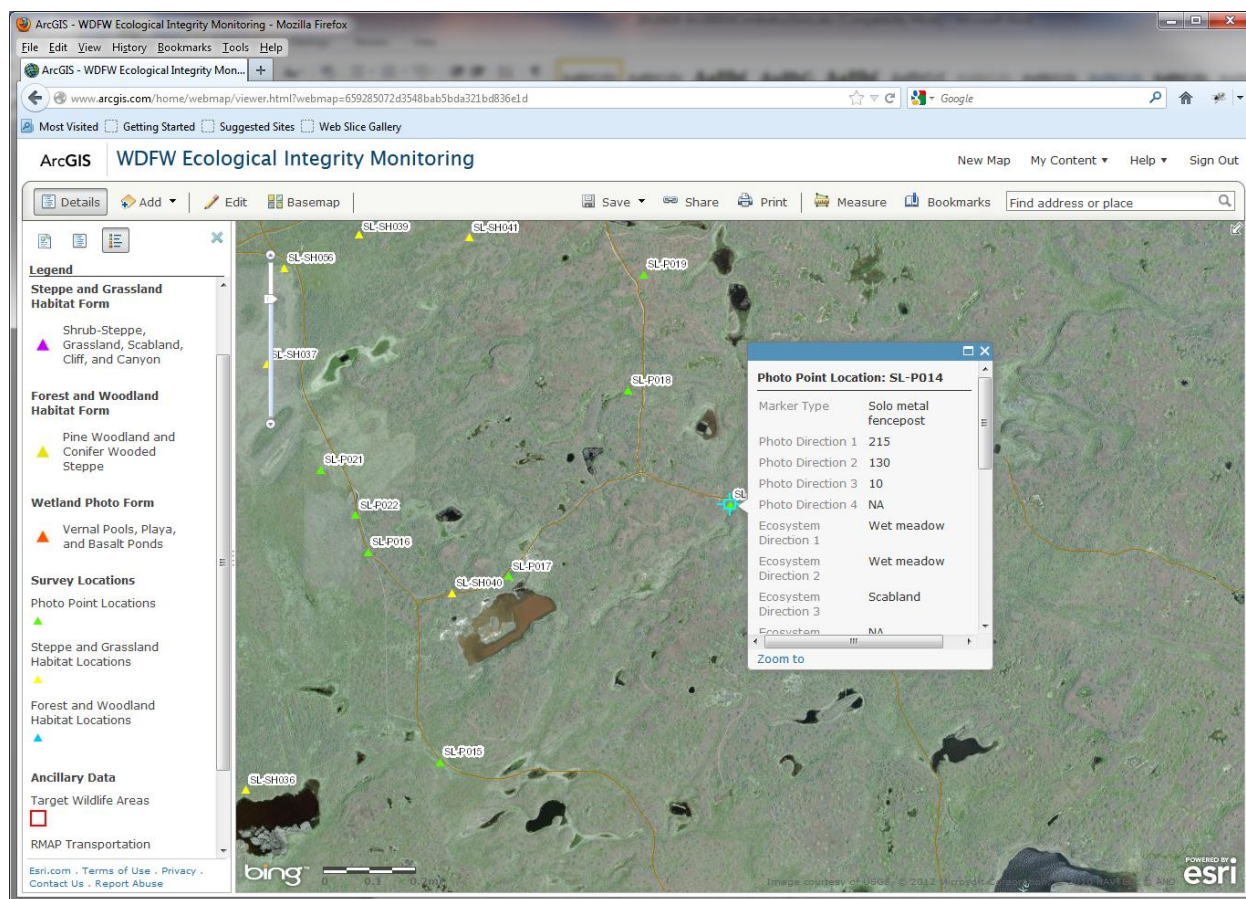


As you use the computer mouse (or the zoom slider in the upper left of the map frame) to zoom around the map you will see that different layers show up at different map scales. When you zoom in closer you will see that the photo points and steppe habitat survey locations are labeled with plot numbers. If you click on one of the points you will be presented with a popup dialog that contains the plot number, UTM map coordinates, and Latitude and Longitude map coordinates. If the location you clicked is a photo point you will also see the photo directions, habitat information for the location, and any baseline photos that may exist. Baseline photos will be shown as attachments in the photo point popup. Clicking the attachment link will open the baseline photo and this might be interesting to compare to your recent observations. All of the information contained in the popups should be useful for planning a data collection excursion onto the wildlife areas. For example if you are planning on visiting photo points you would want to write down the photo compass directions so when you got out to the site you would know what direction to take the picture.



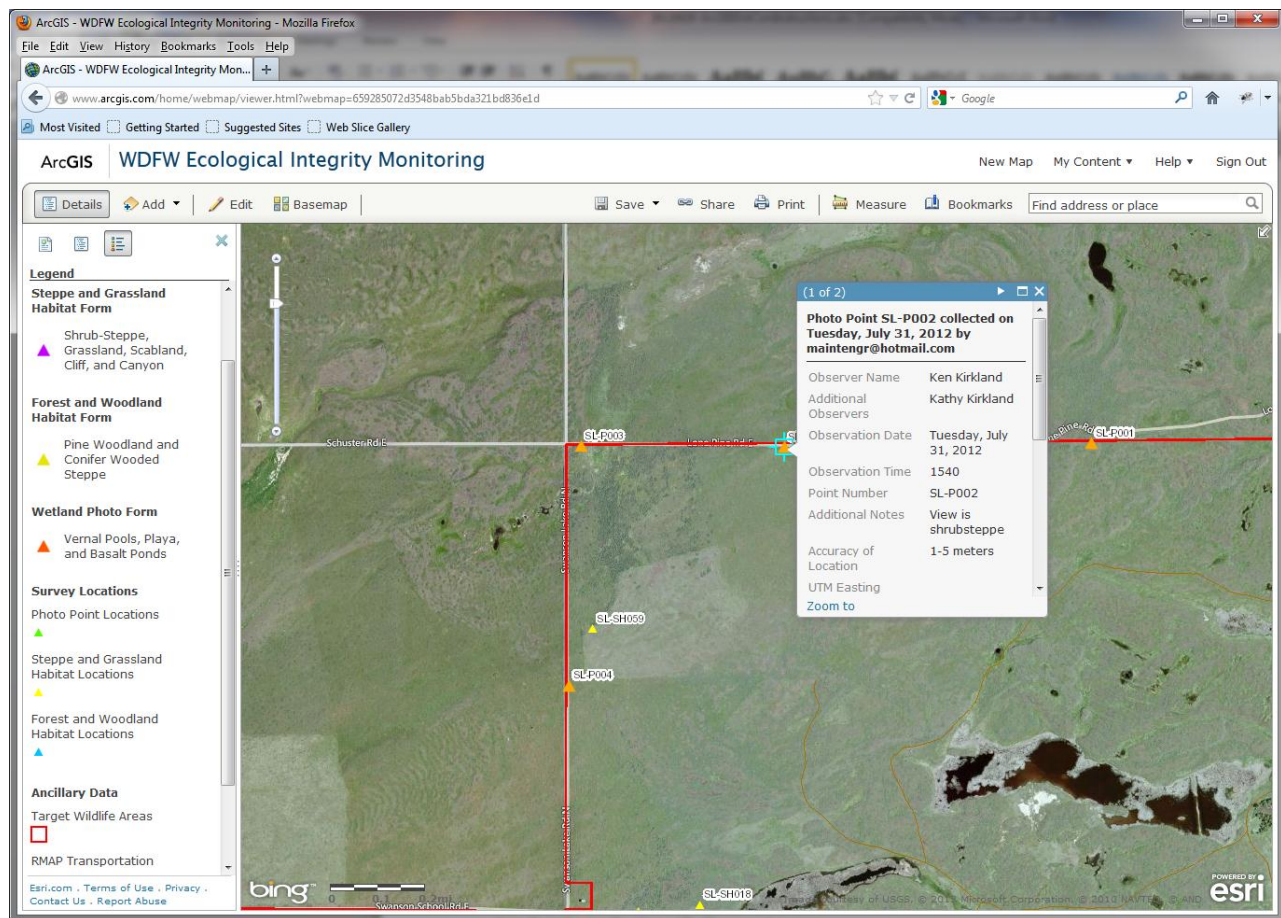
The image above shows the popup for the Steppe and Grassland Habitat Locations as well as the plot labels. Note that both Universal Transverse Mercator (UTM) coordinates (Map Datum=NAD83) as well as Geographic Coordinates in Decimal Degrees (Latitude/Longitude, Map Datum=WGS84) are provided for trip planning. In addition to the coordinates available in the web map, both comma separated files and GPX files containing the all the coordinates are available for download from the EIM website. Programs such as MapSource (from Garmin) and DNR GPS (freely available from Minnesota DNR) allow you to upload these comma separated or GPS files to your handheld GPS. Comma separated files can also be opened in Microsoft Excel if you want to print of a spreadsheet of all the plot coordinates. GPS units that are available for project use at the wildlife area should have the plot locations for that wildlife area already installed, but it is probably a good idea to have the coodinates of the sites you intend to visit anyway.





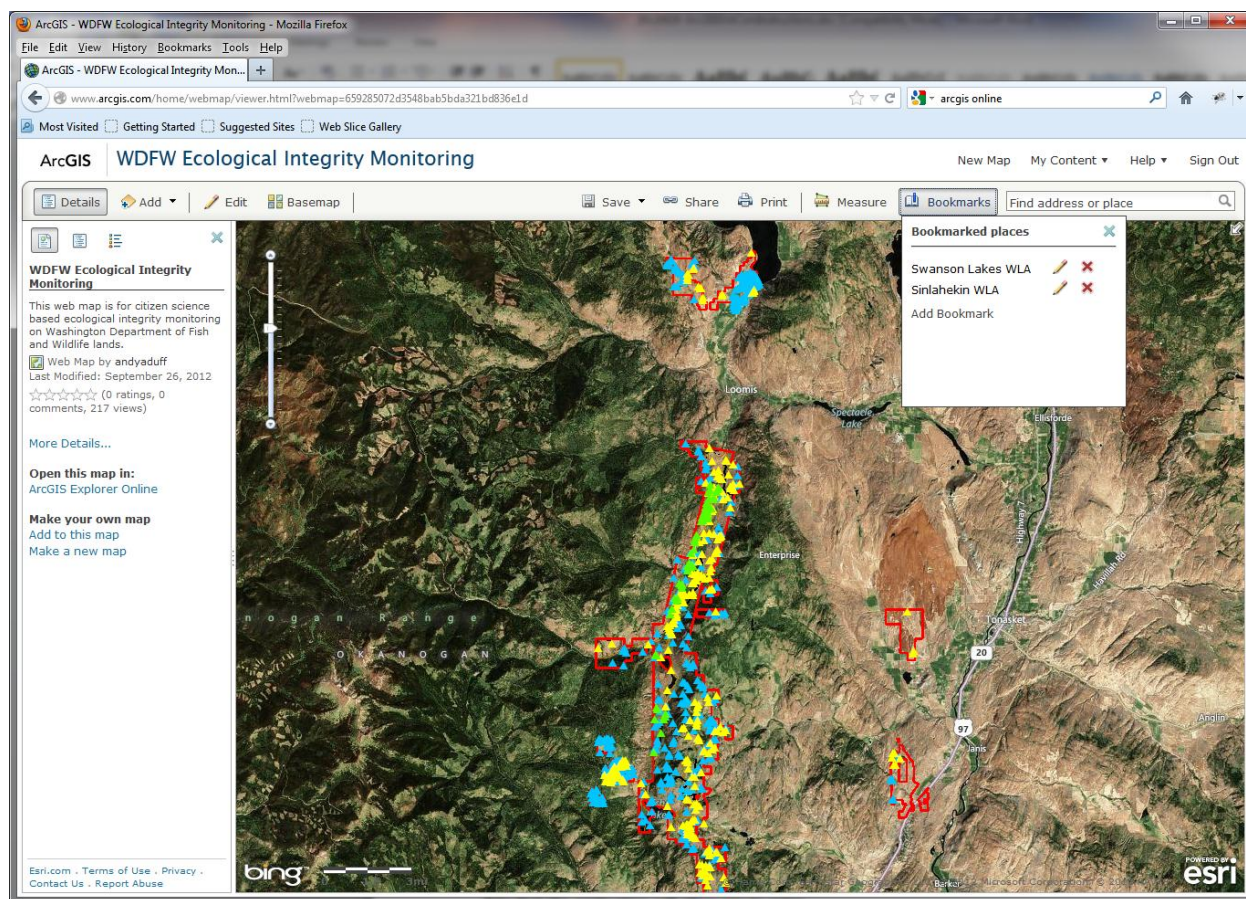
The image above shows part of the Photo Point Location Popup.

Some sites may have been visited by other volunteers. Locations that have already been visited will not have the default color coding (green for photo points, yellow for steppe/grassland, and blue for forest/woodland) but will be larger triangles colored by the type of observation that was taken at that site (purple for steppe/grassland, yellow for forest/woodland, light orange for photo points, and dark orange for woodland photo points). For example, in the screenshot below you can see that I have clicked on one of the larger orange triangles. This location is a photopoint that was visited by a volunteer on July 31<sup>st</sup>. Note that because there are multiple points at this location, the popup indicates "1 of 2". If you click on the arrow at the top of the popup you will be taken to the second stacked observation which is the original photopoint location with coordinate information on how to access the site. We would encourage you to visit sites that have not previously been visited within the current calendar year. As we move into multiple years of the study a wealth of information on the sites will be available to volunteers in the ArcGIS.com application.



You will notice that when you first open the map by default it is centered on Swansons Lake Wildlife Area. To make it easy to switch back and forth between different study areas in the map we have created “Bookmarks” for each wildlife area that is part of the project (see screenshot below). By clicking “Bookmarks” on the toolbar a dropdown will be exposed. From this drop down you can select your wildlife area. Currently we just have bookmarks for four wildlife areas but as the project continues to develop there will be more “Bookmarks” to choose from.



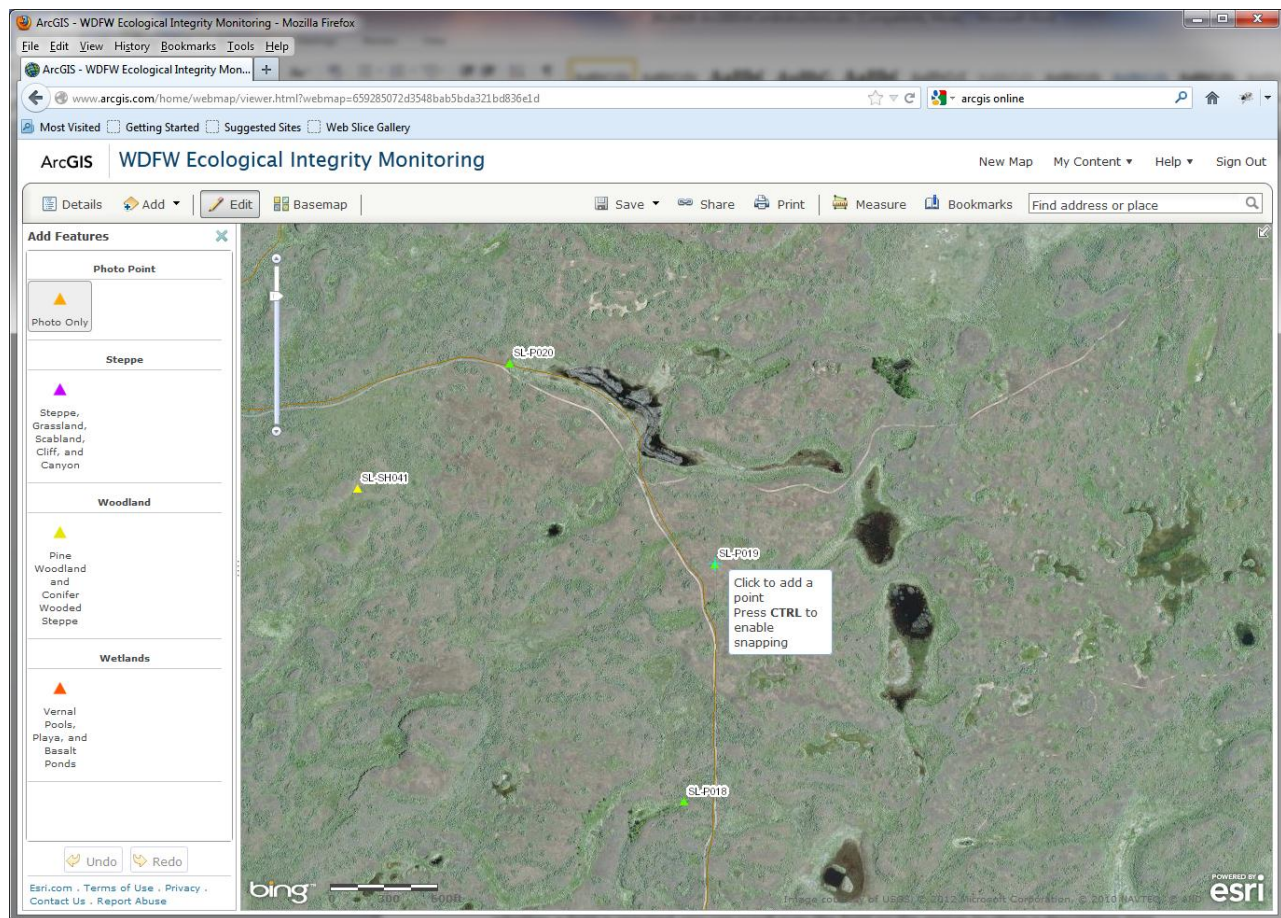


Now that we have spent a little time exploring the map interface and the different ways to access information in the map, we want to work through entering some field data. There are four types of data that the application will allow you to enter.

- 1) Photo Point Data and Photos
- 2) Steppe and Grassland Habitat Survey Data and Photos
- 3) Forest and Woodland Habitat Survey Data and Photos
- 4) Wetland Habitat Point Data and Photos

I will start with the Photo Point data capture form. In order to start entering data you must enter “Edit Mode”. Edit mode can be started by hitting the “Edit” button on the toolbar. It is located two buttons over from button used to turn the details pane on and off. Once you click “Edit”, the details pane will switch to edit mode showing three different types of features that can be edited. In order to enter a photo point you must click on the “Photo Only” button in the details pane and then click on the map.



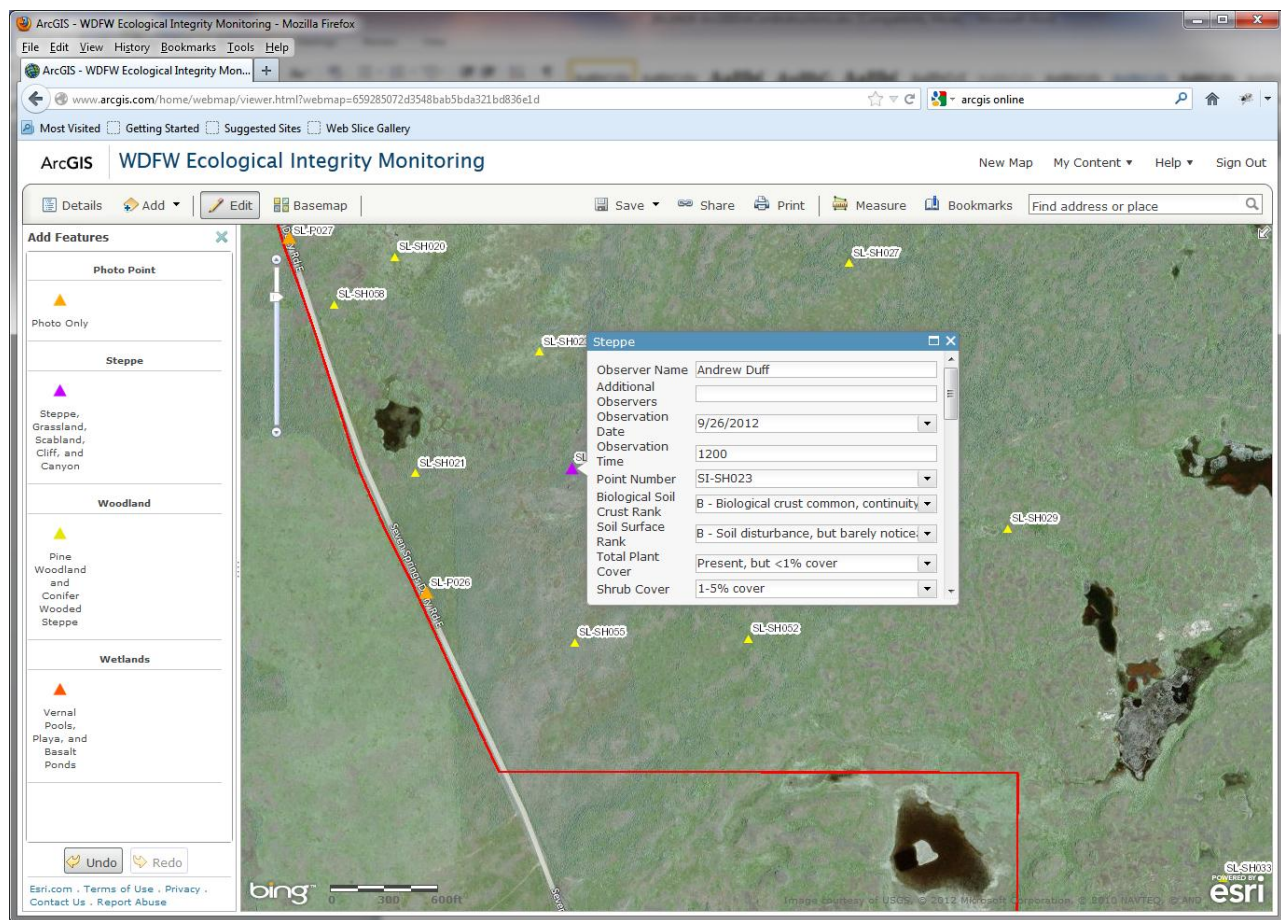


As you can see in the screen shot above once you click on the “Photo Only” button in the details pane and you scroll around the map screen you will have a popup that lets you know you can click to add a point. The best way to ensure that you place your point right on top of the existing points is to hold “CNTL” on the keyboard. When you hold “CNTL” and near a point you will notice that the cursor turns into a crosshair placed over the point indicating that you are on top of the existing point location. Once you see the crosshair you can place the point. After you click on the map you will see a yellow point placed on the map and a data entry popup will appear that asks for a suite of information. If you have questions as to what information is being requested or whether a field is required you can scroll over the field on the popup to show a description (see screenshot below).

Once you have entered all of your information into the popup at the very bottom you will be able to upload a photo. For photo specific naming conventions please see the protocol documents available on the website. Please only record one photo per photo point observation record. If you take multiple pictures at a given location (for points with multiple bearings) you will need to create multiple new photo points with 1 picture per point. Please note that once you select the photo it may take a 30-60 seconds for it to upload. Please wait until you see the photograph listed in the dialog box before closing the dialog. If you have been waiting for longer than 2 minutes you may need to make the file smaller and try again. During our testing we were able to upload files that were up to 12 MB in size. Unfortunately, the exact size of the photo that you can upload through the ArcGIS.com site depends on the amount of Random Access Memory (RAM) that you have installed on your computer. For most relatively new computers (purchased in the last 1 or 2 years, 2-4 GB of RAM) you should have no

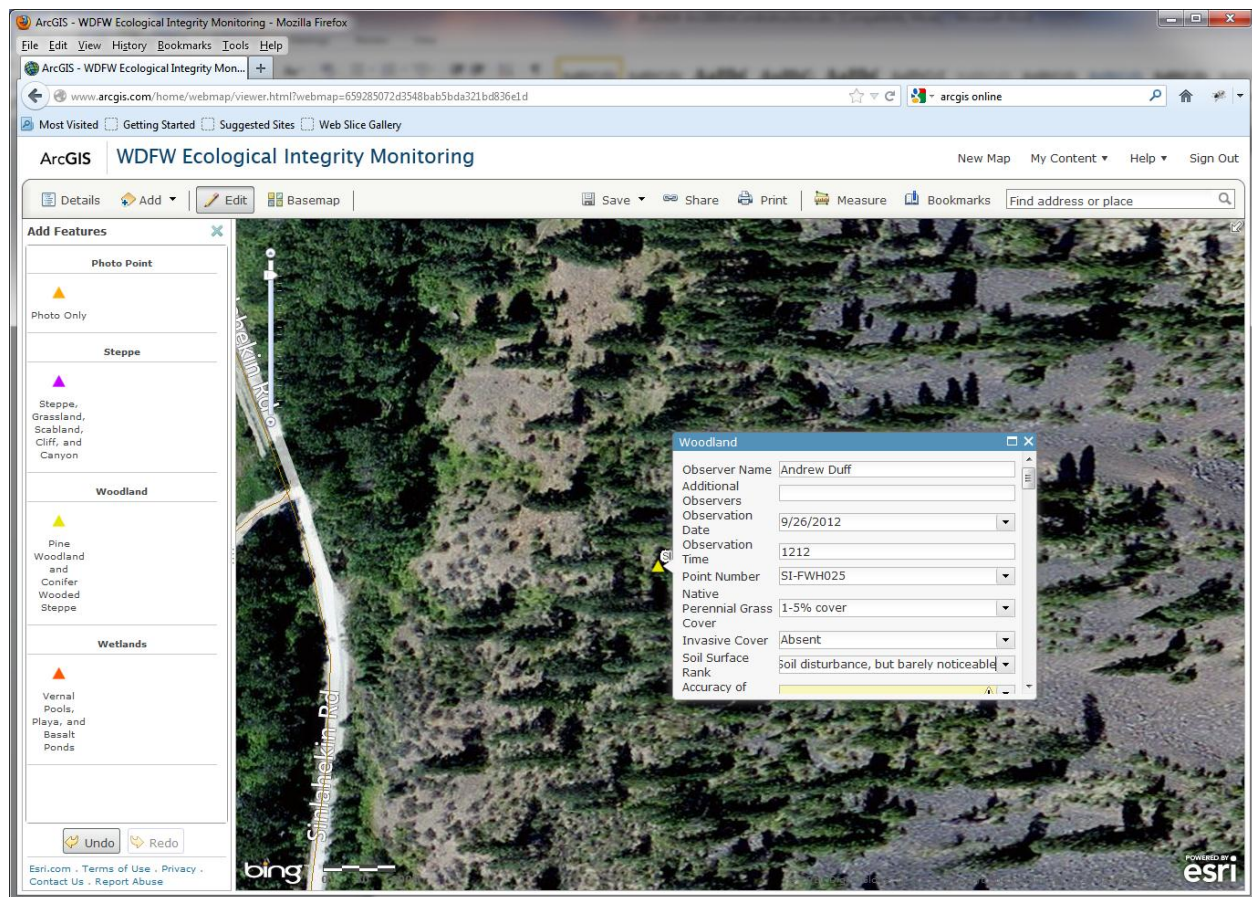
For more information on using the ArcGIS.com application please contact [lori.salzer@dfw.wa.gov](mailto:lori.salzer@dfw.wa.gov) or [andrew.duff@dfw.wa.gov](mailto:andrew.duff@dfw.wa.gov).

problem uploading images up to 6 MB in size. For newer machines with more RAM (4-12 GB), much larger image uploads should be possible.

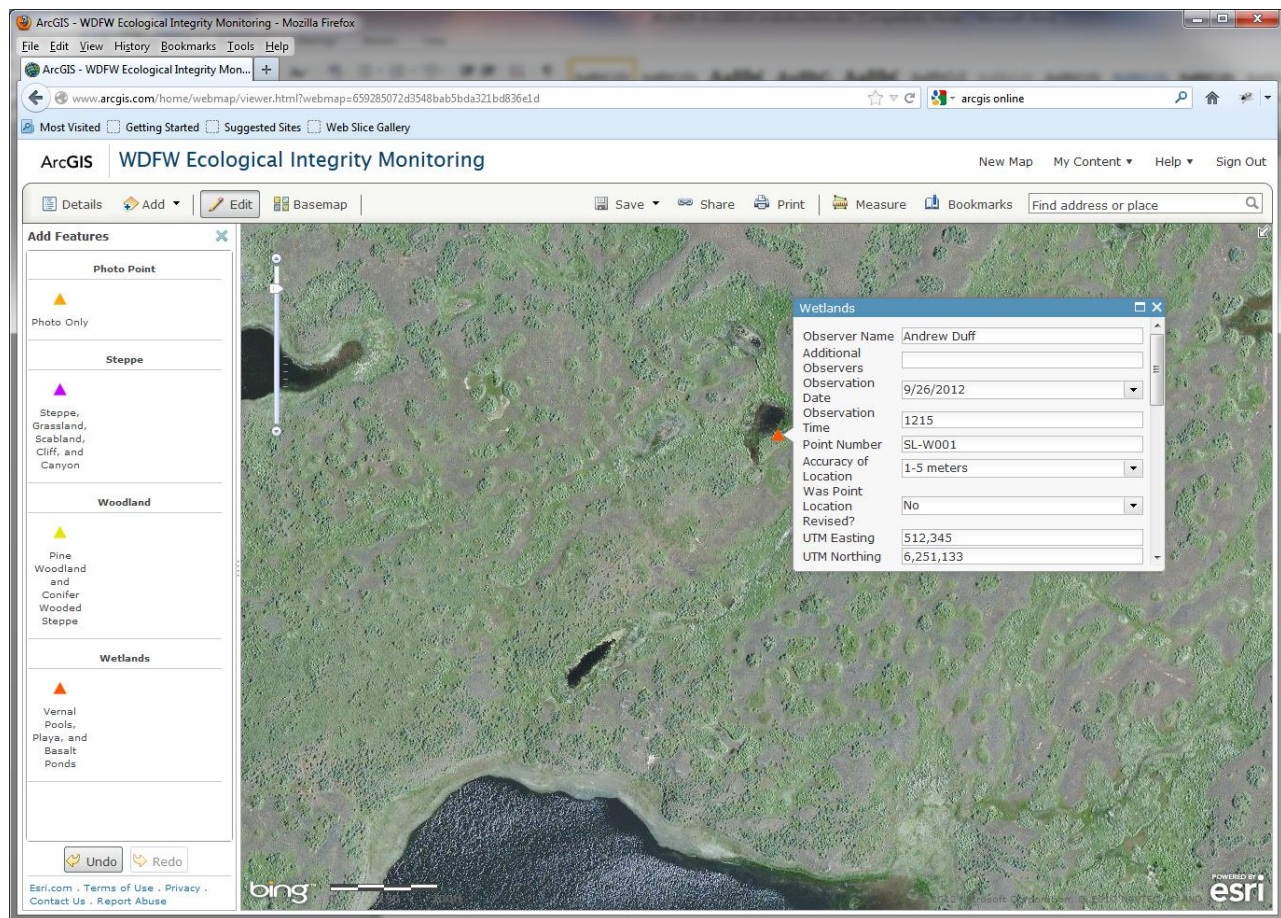


The next type of feature I will go over is the Steppe and Grassland Habitat Point. These locations appear as purple triangles in the application. As with the photo points it is important to use snapping so that you place the habitat point directly on the location where the plot is. The Steppe and Grassland Habitat Point data entry is detailed and will contain a larger number of fields that must be keyed in than photo points alone. We have developed drop down menus to help with entering vegetation measurements.





Forest and Woodland observations are similar to Steppe and Grassland Habitat points but because they target different habitat types, they include a different set of vegetation measurements. Please refer to the protocol for the specific details. As with other observation types, we have built drop downs within the application to make data entry simple for the end user.



The final type of habitat point is the Wetland Habitat Point and is to be collected on the Swanson Lakes Wildlife Area only. During this pilot year, we will not be collecting habitat information at these locations, but instead will be just collecting some basic observation information as well as a photo. For wetland habitat points it is required that you record the UTM coordinates, Map Datum (NAD83 is the preferred datum setting for your GPS), and UTM zone (always 11 for Swanson Lakes) for your wetland photos. If you take multiple photos at a site, please enter multiple observations so that each observation has the bearing recorded along with the point.

That completes the overview of the main features of the application. There are a number of features of the ArcGIS.com map viewer that I would encourage you to explore on your own. One thing that might be helpful would be to switch the basemap from aerial photography to a streetmap or topo map in order to help identify locations you visited in the field. This can be accomplished by clicking the “Basemap” button next to “Edit”. You may also be interested in using the measure or printing tools. In the measure dialog box there is a way to obtain latitude and longitude coordinates for any location on the map which could be handy if you located a wetland on the map that you would like to visit to photograph.

These instructions are currently in draft form. We welcome any feedback that you might have on how to improve these instructions. Thank you for participating the WDFW Ecological Integrity Project!